

Service Date: September 23, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER of the Application of)	
the MOUNTAIN STATES TELEPHONE)	UTILITY DIVISION
AND TELEGRAPH COMPANY (MOUNTAIN) BELL))	
for authority to establish new)	DOCKET NO. 80.10.79
rates and for approval of tariff changes)	
in connection with its comprehensive)	ORDER NO. 4839
rural telephone improvement program.)	

Service Date: September 23, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

IN THE MATTER of the Application of)	
the MOUNTAIN STATES TELEPHONE)	UTILITY DIVISION
AND TELEGRAPH COMPANY (MOUNTAIN)	
BELL) for authority to establish new)	DOCKET NO. 80.10.79
rates and for approval of tariff changes)	
in connection with its comprehensive)	ORDER NO. 4839
rural telephone improvement program.)	

APPEARANCES

FOR THE APPLICANT:

J. Walter Hyer, III, 600 North Park Avenue, Helena, Montana 59601, appearing on behalf of Mountain Bell

Laura D. Ford, 931 14th Street, Denver, Colorado 80202, appearing on behalf of Mountain Bell

FOR THE INTERVENOR:

James C. Paine, Montana Consumer Counsel's Office, 34 West Sixth Avenue, Helena, Montana 59620, appearing as the Montana Consumer Counsel

FOR THE COMMISSION:

Calvin K. Simshaw, Staff Attorney, 1227 11th Avenue, Helena, Montana 59620, appearing on behalf of the Montana Public Service Commission Staff.

BEFORE:

GORDON E. BOLLINGER, Chairman
JOHN B. DRISCOLL, Commissioner
HOWARD L. ELLIS, Commissioner
CLYDE JARVIS, Commissioner
THOMAS J. SCHNEIDER, Commissioner

I N D E X

FINDINGS OF FACT

Page

PART A - Background	2
PART B - Inadequacy of Current Rural Service	4
PART C - Time Frame for Completion of Rural Upgrading	7
PART D - Rate of Return	11
PART E – Costs	16
PART F - Rate Design and Revenue Generation	24
CONCLUSIONS OF LAW	28
ORDER	29

FINDINGS OF FACT

PART A Background

1. On July 16, 1980, the Commission issued Order No. 4585a in Docket No. 6652. In that order the Commission established the need for comprehensive improvements to the Applicant's plant providing rural telephone service in Montana:

The Commission finds that service in rural areas has been allowed to deteriorate to such an extent that only a comprehensive rural improvement program will provide the reasonably adequate service and facilities required by law. As was pointed out by several public witnesses, repairs on a patch-work basis are not the answer. (Order No. 4585a, Finding of Fact No. 170)

The Commission concluded that:

Pursuant to Section 69-3-201, MCA, every public utility is required to furnish reasonably adequate service and facilities. Based upon its Findings of Fact 164 through 167, the Commission concludes that Applicant is not providing reasonably adequate service and facilities in many of those rural areas served by multiparty lines. It is a proper exercise of this Commission's delegated authority to order that a utility take such steps as the Commission feels are necessary to insure reasonably adequate service and facilities in the future. (Order No. 4585a, Conclusion of Law No. 5)

The Commission ordered that:

Mountain Bell is further ordered to file with the Commission, within 90 days of the service date of this Order, a comprehensive rural improvement program designed to bring about reasonably adequate service and facilities in all rural areas within a reasonable time frame. (Order No. 4585a, Order Paragraph No. 4)

2. Pursuant to the directive contained in Order No. 4585a, Mountain Bell filed on

October 14, 1980 its proposal for a Comprehensive Rural Telephone Improvement Program (RTIP). Therein the Company proposed to upgrade all eight- and four-party lines to one- and two-party service over a period of five years. The Company also requested Commission approval of proposed rate and tariff schedules designed to recover the costs of the upgrade program.

3. The Company's proposal would require a capital investment of \$56,697,000 and would result in a revenue requirement of \$22,760,000 over the five year period. The Company proposed to recover the revenue requirement by 1) imposing an immediate zone construction charge on all new requests for service outside the base rate area, 2) replacing the existing extra exchange line mileage charges with a monthly zone increment charge, and 3) increasing the monthly rate applicable to all main stations within an exchange when that exchange is 90 percent upgraded.

4. Pursuant to public notice the Commission conducted a public hearing to consider the Company's proposed RTIP held in Helena on April 28 and 29, 1981. The Commission also conducted satellite hearings at which public testimony addressing the proposal was taken at Missoula, April 14, 1981; Great Falls, April 20, 1981; Lewistown, April 21, 1981; Bozeman, April 27, 1981; Butte, April 30, 1981; Glendive, May 6, 1981; Miles City, May 6, 1981; Forsyth, May 7, 1981; Broadus, May 12, 1981; and Billings, May 13, 1981.

5. On July 28, 1981 the Commission heard oral presentations by the parties in lieu of briefs.

6. The Montana Consumer Counsel has participated in these proceedings from their inception.

Inadequacy of Current Rural Service

7. The Commission has for some time been concerned by the adequacy of service being provided by Mountain Bell in rural areas. In past dockets the Commission has consistently expressed its disappointment at the lack of progress towards upgrading service in the rural areas. The testimony and evidence presented in this docket has again confirmed the Commission's concerns regarding rural service.

8. The record in this case is replete with testimony indicating that existing rural telephone service via eight- and four-party lines is inconvenient, unreliable and a potential threat to the health and safety of rural subscribers. The present system's unreliability is not surprising in light of repeated] testimony describing lines and other facilities as often being 40 or 50 years old. Service outages appear to be commonplace on many of the rural systems. Such outages have proven to be not only inconvenient but have posed a threat to personal safety and property. Typical is the testimony of one witness at the Broadus satellite hearing:

MRS. MARLYS WOLFGRAM: Marlys Wolfgram; I live 94- miles north of Broadus. On the 30th of March, our house burnt down to the ground because we couldn't get on a phone to report the fire. It was noticed at ten minutes to six, and by the time Luke Early went down to Tommy Wallace's, it was ten minutes to seven. The Fire Department left Broadus within three minutes of getting the call.

COMMISSIONER SCHNEIDER: Mrs. Wolfgram, was the phone line out at the time of the fire? I'd like to understand this a little bit more.

MRS. MARLYS WOLFGRAM: Yeah, as I said, the time that Virginia first noticed it, she went ----

COMMISSIONER SCHNEIDER: Who's Virginia?

MRS. MARLYS WOLFGRAM: Our business partner. She has a trailer on the ranch there in addition to our house, and she has a phone in her house too, different number and everything, and when she noticed the smoke, she went to call the Fire Department

and the phone was dead, so she went over to John's, John Early's, and naturally their phone was dead. So, their son drove five miles up to Tom Wallace's to use their phone. They're on RTA.

(Broadus Satellite Hearing, Transcript pp. 36, 37, 39)

9. Even where the telephone plant is newer and more dependable, service in the form of eight- and four-party lines cannot be viewed as being adequate in this day and age. A problem that will always be present with such service was described by a witness at the Butte satellite hearing:

I live on an eight-party line. Our line as far as I know, it has been there since it was first built. Being on an eight party line, as far as we are concerned, is not a big problem because in the country you learn to get along with your neighbors. And, if you need the line and say "I need the line" they will hang up if it's an emergency. But, it is the people that are calling you that have the problem getting in. That is the problem. It is the incoming calls with the line being busy. Why should somebody be on the phone for an hour or two. But, an eight-party line who is it? You really don't know. But, I think the incoming calls are a real problem that so far has been overlooked.

(Butte Satellite Hearing, excerpt from testimony of Chuck Lane)

10. That eight-party service is unacceptable today can be evidenced by looking at the situation in neighboring states. In the other states in Mountain Bell's service area less than 1 percent of total main stations are eight-party. In Montana more than 6 percent are eight-party. Consumer Counsel's witness Dr. John W. Wilson's Exhibit No. J.W.-1 is revealing in this area:

December 1980*			
	Main Station <u>8-Party</u>	Total Main <u>and Equivalent</u>	Main 8-Party as a <u>Percent of Total</u>
Montana	16,418	264,616	6.204%
Arizona	5,307	1,048,702	.506%
Colorado	2,012	1,238,833	.162%
New Mexico	2,009	398,150	.505%
Utah	1,370	494,878	.277%
Texas	118	151,279	.078%

Wyoming	86	184,672	.047%
Idaho	8	257,249	.003%
Total	27,328	4,038,379	.677%

*Source: Response to Data Request No. RIP 21 of 44 (Docket No. 80.10.79 -- RIP Document No. 39).

Montana's second largest public telephone company, Northwestern Telephone Systems, Inc, had 1,215 eight-party main stations in 1976 but had reduced that number to about 65 by the end of 1980. This is again less than 1 percent of the total.

11. Evidence such as that exhibited in Dr. Wilson's Exhibit No. J.W.-1, further supports this Commission's statement made in Docket No. 6652, Order No. 4585a that Montana's rural customers have become the forgotten stepchild of the Mountain Bell system. The record is clear that when viewed against the level of rural service provided by telephone cooperatives, other private companies or even Mountain Bell's own service in other states, Montana's rural customers have been grossly neglected by Mountain Bell .

12. Mountain Bell's rural customers are not blind to what is occurring around them. The Commission is regularly besieged by petitions from Mountain Bell rural customers asking that they be released from Mountain Bell's service territory so that they can be served by a rural telephone cooperative. These customers desire this even knowing that it will result in the assessment of toll charges to call the nearest town.

13. The Commission finds as it did in Docket No. 6652, Order No. 4585a, that telephone service being provided by Mountain Bell to rural areas in Montana is not reasonable or adequate. More specifically, the Commission finds that eight- and four-party service are no longer acceptable in any but the most extreme circumstances.

14. The Commission further finds that a major effort to upgrade existing eight- and four-party service to one- and two-party service is in order. In fact such an undertaking is long overdue in Montana.

PART C

Time Frame for Completion of Rural Upgrading

15. In its RTIP proposal the Company proposed that the upgrading of all eight- and four-party lines take place over a span of five years. The Company proposed to upgrade approximately one-fifth of its 112 Montana exchanges in each year of the program. The exchanges to be upgraded each year would be roughly spread equally among the Company's six Montana districts.

16. Mountain Bell witness Tom Fagrelus commented on the appropriate time frame over which the RTIP should be implemented:

A. The primary reason the Company proposes to do the Rural Program over a five-year period rather than any other time frame is that the undertaking is so large that practicality suggests a five-year time frame. To shorten the time would be very difficult and very costly, even utilizing other available contractors to help supplement the Company's existing forces. The proposed Rural Telephone Improvement Program almost doubles the size of Montana's existing Outside Plant construction program. Any shortening of the program would greatly intensify the effort required and disproportionately increase the cost. (Fagrelus, Direct, p. 10)

17. Mr. Fagrelus further commented on the proposed five-year time frame during the course of cross-examination:

Q. If Mountain Bell chooses to go with contract installation to accomplish this program, why can't they go with contract installation over a two-year period or an accelerated period?

A. I guess we could pick about any period to do this program in, but our five-year was based on the experience that we have drawn from the other states in the Company; mainly, Wyoming, Colorado, and New Mexico. It is very difficult to double the size of your program and still maintain the necessary control to assure yourself that you are getting a quality job and you are getting an economical job that we priced out. Our feeling in this program is that we will probably have to enlarge our present employee base in order to take this program on because the employees we have now are just about at capacity taking care of our normal construction program, which is in the neighborhood of 15 million this year. So, it is our feeling that probably we would have to enlarge this force somewhat, but the force we would enlarge it by would only be enough people to

take care of the quality control necessary on the engineering design and the construction of the installation.

Q. So is the impediment then supervisory personnel? You don't have enough supervisory personnel to supervise a program of this scope over a shorter period of time?

A. That is mainly it, yes. (Fagrelus, Tr., pp. 167, 168)

18. Notwithstanding the testimony of Mr. Fagrelus the Commission finds that it would not be reasonable to delay upgrading of any exchange for five more years. As has already been discussed, upgrading of Mountain Bell's rural plant is already long overdue. Over the past few years the Commission has repeatedly heard testimony from rural customers indicating that they had been misled concerning the timing of any upgrading. For example, a Bainville resident testified at the Helena hearing as follows:

Now, I want to point out, and I want Bell to listen to this. During one of these meetings in Bainville in 1969, and I can get further witnesses to testify, a Bell representative told the farmers and ranchers of our areas that within five years we would have private lines in that area. That's been 11 or 12 years ago and we haven't seen them yet. (Testimony of W. Fay Crusch, Helena Hearing, Transcript pp. 111-112)

Delaying for five more years the upgrading of some exchanges would only compound an injustice that has already been inflicted upon rural customers.

19. The Commission is also concerned about the increased costs due to inflationary pressures that would only be magnified if the project were carried out over a five year period. It is obviously in the best interests of the customers and the Company to complete the upgrading as soon as possible.

20. Ideally, the Commission would like to see upgrading of all rural plant within the next construction season. However, based upon the testimony of Mr. Fagrelus such a proposition would not appear to be realistic. The RTIP is contemplated as an undertaking above and beyond Mountain Bell's recurring annual construction expenditures and efforts. Although the Company contemplates contracting out a large portion of the work involved with the RTIP, it would use its own people to oversee the project and to maintain quality control. This would not be possible if the program were attempted on a one year basis. Quality might also suffer if the Company was required to

find five times as many qualified contractors as it would have had to under a five-year time frame.

21. The Commission finds that three years is a reasonable period within which to complete an upgrade of Mountain Bell's rural plant. Such a time frame will enable the Company to maintain its quality control and will allow the Commission to properly monitor the project. The Company is expected to undertake to provide the necessary supervisory personnel and make the necessary contracting arrangements to complete the rural improvement program by the end of the 1984 construction season.

22. At the end of the 1984 construction season the Commission will strongly consider declaring any and all remaining plant used in the provision of four- and eight-party service to be not useful and will further consider removing it from the Company's rate base.

23. In order to achieve a rural service system that includes no four-or eight-party lines, all existing four- and eight-party customers will be required to select either single- or two-party service at the time their area is upgraded. This is reasonable in light of the fact that many current four-and eight-party customers would in effect be receiving single- or two-party service anyway, as their neighbors voluntarily elect to abandon four- and eight-party service in favor of upgrading.

24. In order to better enable the Company to move from a five-year RTIP to an accelerated three-year plan, the Commission again urges Mountain Bell to consider spinning off some of its rural territory to other companies through sale or trade. Elimination of the need to upgrade some of the more isolated and costly service areas would seemingly make the three-year plan more manageable.

PART D

Rate of Return

25. This Commission and others have long equated a reasonable rate of return on investment as being the utility's cost of capital. In this case there were differing views taken

as to how the cost of capital associated with investment necessary for rural upgrading should be determined.

26. In filing its RTIP proposal the Company advocated recognizing the cost of capital on a prospective basis. That is, attempting to identify what the cost of capital will be in the future as investments are made in the RTIP.

27. Mountain Bell witness William Danner testified that the overall cost of capital the Company would incur in implementing the RTIP over the 1982 to 1986 time frame would be 14 percent at a minimum. Mr. Danner defined cost of capital as follows:

The 'cost of capital' to Mountain Bell is the rate of return required by investors in order for them to furnish the capital needed by the Company. This capital is sought from two classes of investors, debt investors and equity investors. Therefore, the prospective cost of capital is a combination of the cost of debt, the cost of equity and the proportionate amount of each in the capital structure. (Darner, Pre-filed Direct Testimony, c. 3)

28. Mr. Danner arrived at his 14 percent minimum prospective cost of capital by applying both a risk premium approach (using a projected inflation rate) and a discounted cash flow analysis. He calculated a prospective cost of debt of 11 percent and a prospective cost of equity of 16.5 percent. He applied these costs to a 45/55 debt/equity ratio resulting in a 14.03 percent overall cost of capital as follows. (Darner, Exhibit FJo. 3-A, Schedule 1):

<u>Type of Capital</u>	<u>Percent</u>	<u>Prospective Cost</u>	<u>Weighted Cost</u>
Debt	45	11%	4.95%
Equity	55	16.5%	<u>9.08%</u>
Overall Cost of Capital			14.03%

29. Consumer Counsel witness Mr. George Hess did not agree that the cost of capital should be determined on a prospective or incremental basis. Mr. Hess stated that any estimate of future costs is of questionable accuracy. Mr. Hess maintained that the more widely accepted procedure is to use the overall average cost of capital rather than the incremental cost of capital for determining the cost of serving individual customer groups.

30. The Commission rejects the Company's proposal to recognize a

prospective cost of capital. The Commission cannot accept Mr. Danner's analysis for several reasons. First, the Commission has always declined to approve rates for utility service based upon future or projected costs. Secondly, Mr. Danner's inflation projections are based upon a five year time frame whereas the Commission has determined that the rural upgrade should be completed within the next three years. Mr. Danner's analysis includes an allowance for market pressure which this Commission recently rejected in Docket No. 80.12.100, Order No. 4786b. Finally, Mr. Danner gives no recognition to the effects of double leverage which flow from Mountain Bell's relationship with its parent company AT&T. The Commission has applied a double leverage approach in determining Mountain Bell's cost of capital in its last three general rate cases.

31. However, the Commission is also reluctant to rely entirely upon an overall embedded average cost of capital in determining the appropriate rate of return on the investment necessary to upgrade Mountain Bell's rural plant. As Mr. Danner pointed out, all of the plant installed in the RTIP will be financed with capital that has yet to be obtained. Therefore, it is unlikely that the current embedded cost of capital is a more accurate measurement of the actual costs of capital that will be incurred than is Mr. Danner's projected cost of capital.

32. Ideally, the Commission would like to be in a position where it could hold off making a determination of an appropriate rate of return-until the actual costs of capital that were incurred in the RTIP were known and were rolled into the average overall cost of capital at the time rates were set. However, the Commission has determined that it would not be in the best interests of the ratepayers to assume such a posture in this case.

33. The Company and the Commission have been attempting for some time now to arrive at a workable solution to the rural multi-party service problem. To this point no agreeable solution has been formulated and no improvement program has been forthcoming. The major stumbling block has been the issue of an appropriate rate of return on investment necessary to upgrade the rural plant. Mountain Bell has balked at a comprehensive improvement program in the past because of its determination that the rate of return that would have flowed from the Commission's various orders was not sufficient

to adequately compensate them for the required investment. The Commission has of course disagreed. Based upon the record in this case, the Commission has concluded that this continuing disagreement will remain and any improvement program will be further delayed unless a new approach is taken to the rate of return question.

34. The Commission is of the opinion that the rate of return controversy can best be resolved by the identification in this order of an up front firm rate of return for the investment necessary to make the rural upgrades.

35. The overwhelming objective at this point in time is to see that a rural improvement program is set in motion and rural upgrade is actually achieved in the near future. Therefore, the Commission is prepared to adopt the current cost of capital (both debt and equity) as the up-front firm rate of return that will be applied to RTIP investment. This finding strikes a balance between the Consumer Counsel's objection to adoption of a projected prospective cost of-capital and the Company's objection to the adoption of an overall embedded average cost of capital.

36. The current cost of equity is easily identifiable. The Commission just recently found the cost of common equity for Mountain Bell to be 14.03 percent (Docket No. 80.12.100, Order No.- 4786b) . Identification of the current cost of debt is more difficult. The cost of debt found in Docket No.80.12.100, Order No. 4786b was an "embedded cost." However, recent testimony by expert witnesses before this Commission has indicated that at this time there is very little difference between the current costs of debt and equity financing, nor is there likely to be much difference in the near future. Therefore, the Commission finds that it is reasonable to adopt 14.03 percent as the cost of debt as well as equity.

37. In fact, the 14.03 percent cost of debt recognized by the Commission in this case is actually higher than the 11 percent cost of debt projected by the Company's witness Mr. Danner (Exhibit 3-A, Schedule 1).

38. Because both forms of capital financing are recognized as having a current cost of 14.03 percent, the overall cost of capital and the rate of return recognized by the

Commission is also 14.03 percent. Again, because both debt and equity elements are recognized as having the same cost, it is not necessary to address the effects of double leverage or any other capital structure considerations.

39. The Commission finds 14.03 percent is an appropriate rate of return to be applied to Mountain Bell's investment in the RTIP. It is likely to be just as accurate a measurement of what the actual cost of capital incurred will be as would have been Mr. Danner's projected prospective costs of capital or the current overall embedded average cost of capital. Mountain Bell and the ratepayers are now in a position to share the risk that the actual overall cost of capital incurred will be either higher or lower than 14.03 percent.

40. It has been the Company's position that the RTIP must be conducted on a self-supporting or stand-alone basis. Mountain Bell Vice President and Montana General Manager Richard Remington testified:

Two basic and fundamental considerations are the driving forces which lead me to conclude that the Rural Telephone Improvement Program must be performed on a stand-alone basis. These two considerations are quite simply, the sheer magnitude of the proposed project and the fact that the program will be accomplished in the future and will be funded by dollars which will have a future cost. With the current level of earnings generated by its Montana operations, the Company cannot undertake this program without endangering the financial integrity of the firm unless it is allowed to charge rates at a level sufficient to recover the operating expenses plus a return which is just and reasonable under the circumstances. (Remington, Prefiled Direct Testimony, p. 5)

By recognizing a rate of return for RTIP of 14.03 percent the Commission has alleviated the Company's concern and has granted a return on a standalone basis; 14.03 percent overall return versus the 10.91 percent overall return recently granted in the general rate case.

41. The Commission's 14.03 percent overall rate of return determined on the current cost of capital approach is also coincidentally identical to that proposed by the Company using Mr. Danner's projected cost of capital approach. As such and coupled with a future recognition of the other actual costs of the program the Commission sees no reason why the Company should not be prepared to immediately proceed with the RTIP program in the manner directed by this order.

42. The fact that the Commission has identified a rate of return on an up-front as opposed to an after-the-fact basis should not be viewed as a precedent by any of the parties. The circumstances in this case are unique.' It is only the compelling need for immediate action in the area of rural telephone improvement that has caused the Commission to take this action. No utility or other party should expect this Commission to necessarily take similar action in connection with other special plant improvement programs or other new investments related to utility service.

43. The 14.03 percent return is found appropriate assuming the RTIP is completed within the next three years. If for some reason this is not the case, the Commission reserves the right to modify the allowed return.

PART E

Costs

44. Applicant's witness Tom Fagrelus provided testimony presenting the engineering and technology contemplated in the development of a comprehensive, statewide Rural Telephone Improvement Program. He also developed the capital requirements and costs associated with implementing the program. The development of these costs is based on the goal of eliminating all four and eight-party service in Montana by replacing these service offerings with one- and two-party service. The cost study developed in this docket is not an updating of previous studies but is a new study incorporating new costs, technology and growth factors.

45. The cost of implementing a statewide, comprehensive program was arrived at by first gathering the relevant demographic and topographic data for each of the 112 exchanges in Montana. A sample of 23 exchanges was then selected from these exchanges "...using a stratification approach which placed a separate weighting on each one of the exchanges, depending upon the density of eight-party stations within an exchange." (Fagrelus, Direct, p. 4)- Detailed cost studies for each of the sample exchanges were performed using five, ten and twenty year forecasts. Using the 23 exchange studies an average cost per station for the state was derived and the total cost of upgrading the 23 sample exchanges was converted to

a statewide figure. This figure was then projected and inflated to the time period when it was anticipated the rural improvement work would be performed; that is, the five-year period from 1982 through 1986.

46. In developing the cost of implementing the program the Company used the following engineering and technological guidelines and criteria:

- 1) remove all open wire and replace with buried cable except in unusual circumstances,
- 2) use the latest Bell System rural design concepts provided under the license contract services of AT&T's General Department,
- 3) use analog and digital carrier systems,
- 4) use voice frequency electronic devices that reduce the gauge requirements for voice circuits in the rural network (i. e., the SLC - 96),
- 5) design feeder cable to be used for seven years before additional circuits would be required,
- 6) minimize the use of highly expensive nineteen-gauge cable,
- 7) replace all aerial drops with buried drops, and
- 8) design all feeder facilities to provide one- and two-party service, using an average line fill of 1.5 for two-party service.

47. The Commission has expressed great concern that the installed plant be technologically compatible with long-term goals and specialized central office switching equipment. To this concern Mr. Fagrelus responds: "Everything that we use is the most up-to-date State of the Art today and it's one for which we have operating practices covering the construction, the maintenance, the engineering, as well as the training material." (Tr., p. 151) He also mentions that all of the plant to be installed in the program is compatible with measured service. (Tr., p. 149)

48. The projected rural improvement costs by year from 1982 to 1986 are presented in Exhibit No. 2-A, Schedule 2, page 1 of 2, pre-filed exhibits of Tom Fagrelus. This exhibit shows that the Company has projected "capital investment" costs of \$56,697,000;

"conversion costs" of \$4,745,000; and "other" costs of \$7,587,000 for a total cost of \$69,029,000 to fully implement the rural improvement program.

49. The Montana Public Service Commission cannot accept the Company's projected costs for implementing the Rural Telephone Improvement Program. This decision is predicated on a long history of Commission policy regarding cost projections. In the past regulated utilities have been allowed to recoup expenses only after a thorough showing that those expenses have been incurred, accurately measured and are not extraordinarily extravagant.

This policy remains in force today. Bolstering this position is the statement (of Mr. George F. Hess, Montana Consumer Counsel witness, as set forth in pre-filed testimony:

Q. As part of its proposal, Mountain Bell is asking the Commission to approve new tariff schedules designed to generate revenues sufficient to meet the estimated costs associated with its rural improvement plan. Except for Mountain Bell's 1978 proposal, have you ever encountered a regulatory procedure which approves utility rates for service prior to the construction of the plant necessary to render that service?

A. No. Traditionally utility rates have been set to recover actual costs of rendering rates are set. Considering the uncertainty in estimates of future costs, the only procedure fair to both the company and its subscribers would be to base rates on the actual costs after they are incurred and known.

Q. Is there some question as to the accuracy of Mountain Bell's estimates of the costs that will be incurred under its rural improvement proposal?

A. Yes. Any estimate of future costs is of questionable accuracy. Although the company made new cost studies for this case as described in the prepared testimony of Mr. Fagrelus and Mr. Shriver, those cost estimates rest on a host of assumptions. Assumptions had to be made concerning the representativeness of the 23 exchanges studied, the future inflation that will be experienced in the cost of installing plant, future cost of capital, future income tax laws, the number and location of new subscribers that will be added outside the base rate area, the number of existing customers that will upgrade to One-party rather than two-party service, the savings in maintenance expenses that will be experienced from undergrounding rural lines, the additional toll revenues that will result from upgraded service and so on. The validity of these and the other assumptions concerning events

that will occur between now and the end of 1986 is simply not known. (Hess, Direct, pp. 2-4)

50. Compounding this problem is the current situation surrounding the Joint Board's proposal for replacing current separations procedures with a local exchange access charge. Currently the cost of providing local exchange services is allocated between interstate and intrastate operations on the basis of the Subscriber Plant Factor (SPF) . This allocation method tends to favor less densely populated areas through additional inflation of the SPF factor.

51. In developing the intrastate revenue requirement necessary to accommodate the rural improvement program Mr. Shriver (witness for Mountain Bell) has utilized upward trended subscriber plant factors in each year of the project:

Q. WHY DID YOU USE TRENDING INTERSTATE SUBSCRIBER PLANT FACTORS TO DEVELOP INTRASTATE EXPENSES AND INVESTMENT LEVELS?

Between 1974 and 1979, the interstate subscriber plant factor increased from .295673 in 1974 to .366320 in 1979. This increase results in an increasing assignment of expenses and investment to the interstate jurisdiction, thereby reducing intrastate revenue requirements. We have assumed that this trend will continue through the 1982-1986 time frame. (Shriver, Direct, pp. 3, 4)

The effect of this assumption is to assign larger portions of the cost of the program in each year to the interstate operations. Should the Joint Board decide that the current method of allocating costs between interstate and intrastate operations is no longer appropriate and adopt a procedure based on subscriber line usage (SLU) and a system of access costs, the result will more than likely be a substantial reallocation of cost back to the intrastate arena. In that event the costs as presented by the Company in the present filing tend to dramatically understate the responsibility of intrastate subscribers .

52. In light of the foregoing discussion the Commission feels that new rates and tariffs can be implemented only after the costs of upgrading have been tracked and made known. Mr. Hess addresses how this could be accomplished:

Q. You said that rates should be based on actual costs after they are incurred and known. How would that be done for a five-year rural improvement program?

A. If Mountain Bell is ordered to go forward with upgrading rural service, the Commission should require the company to periodically report on the progress of the program. Such reports should

inform the Commission of any significant departures in capital costs, revenues and expenses from those projected for this proceeding. The reports should also contain an explanation of the cause for such departures and an evaluation of the impact such changes will likely have on the ultimate cost of the program. Furthermore, as the plant is actually engineered and installed the company should demonstrate to the Commission that the plant to be installed is the least cost alternative available.

As actual cost and revenue data become available, the Commission should give public notice and hold a hearing to consider proposed tariff changes required to give Mountain Bell a reasonable opportunity of recovering its actual costs. If it does not conflict with the nine month time limit within which the Commission must act, I would suggest that in order to provide complete continuity in the evidence from inception to completion, this docket be kept open for the periodic revisions to tariff schedules to reflect actual rural improvement costs. Otherwise, either Mountain Bell should waive the time limitation statute for this case, or the Commission should initiate new dockets for each tariff change. (Hess, Direct, pp . 4, 5)

53. The Commission has decided that it is most appropriate to adhere to the nine-month statute in proceeding with rural improvement. Consequently, this docket will be closed subsequent to the sixty-day extension granted by the Company and a new docket will be opened annually in order to review the progress of the rural improvement program.

54. In the interim the Commission will work closely with the Company in deciding which exchanges deserve priority in upgrading. The Company will develop a cost tracking procedure that will enable the Commission and the office of the Montana Consumer Counsel to scrutinize the claimed expenses on an exchange by exchange basis as well as total expenses incurred during the tracking period. Because the 1981 construction season is nearly behind us, it is contemplated that the Company will spend the off season preparing the necessary engineering and supervisory studies and personnel and begin construction in the spring of 1982. Following the first year's construction season the Company will file for increased revenues necessary to cover the costs of the rural upgrading completed during the construction season, including a 14.03 percent return on investment. During the course of that proceeding evidence and testimony will be presented allowing the Commission to reach a decision regarding the appropriate level of expense to be granted along with the appropriate rate design and rate increases required to cover those expenses.

55. Because the RTIP will involve an almost total rewiring of some rural areas, implementation of the program will provide a rare opportunity to efficiently modify exchange boundaries- where justified. As the Company engineers upgrades of the various areas it should examine the feasibility of connecting some of those areas to wire centers other than through which they had received eight- or four-party service. The Commission recognizes that communities of interest may have changed over the decades that much of the rural plant has been in place. If a rural area had originally been connected to a wire center in Community "A" for its eight-party service, but its community of interest has since clearly shifted to Community "B"; then the Company should consider connecting that rural area to a wire center in Community "B" as a part of the RTIP upgrade. Since implementation of RTIP will often involve a total rewiring regardless, the area should be wired into Community "B" unless there is a large differential in the comparative distances to the two communities or other factors make it cost prohibitive.

56. In conjunction with RTIP Mountain Bell should also investigate the feasibility of combining various exchange areas through the use of trunking facilities in those instances where there is a strong community of interest between two areas in separate exchanges.

57. In order to provide the most cost effective telephone system the Commission expects Mountain Bell to integrate the RTIP construction planning with annual recurring normal outside plant and central office construction. For example, extension of new service into an area before that area has been upgraded under RTIP should to the maximum extent possible reflect designs that are compatible with RTIP upgrading that will be coming to the area later.

58. In addition to the annual cost tracking filing, the Commission will also expect the Company to file bimonthly progress reports on RTIP. Beyond giving a general overview of the status of engineering and construction on the project, the reports should also address the concerns expressed in the prior three findings. The reports should specifically identify and describe any revisions in cost estimates as the actual engineering and construction are done.

59. Subsequent to the receipt of each of the bimonthly progress reports, the Commission would anticipate holding informal meetings with the Company and the Consumer Counsel to further inquire into the status of the project.

PART F

Rate Design and Revenue Generation

60. Mr. Lou F. Marquardt provided testimony and exhibits addressing the issues of revenue generation and rate design associated with the Rural Telephone Improvement Program (RTIP). Bearing in mind the sometimes conflicting concepts of universal service and cost causer responsibility, Mr. Marquardt proposes the establishment of a system of exchange zones outside the Base, Suburban or Locality Rate Areas in lieu of the existing mix of Urban Zone Rate Areas, four-party Zone Rate Areas and extra exchange (Rural Area) mileage charges. Zone 1 would extend one mile from the existing Base Rate Area (BRA); Zone 2 would extend out two miles beyond Zone 1; and each subsequent zone would extend out an additional three miles. Customers living outside the Base Rate Area would be assessed an Exchange Zone Incremental Charge; the further the zone in which the customer resides is from the BRA, the higher the Zone Incremental Charge. This increasing charge takes recognition of the fact that it becomes more expensive to provide service the further one resides from the BRA. Also, moving to a zone arrangement necessarily means that some customers will end up paying more than their current mileage charges while others will end up paying less.

61. As part of the zoned exchange concept the Company has proposed to replace the existing Construction and Installation Charges and Allowances Tariff with the Construction and Zone Construction Charge Tariff. Under the existing tariff a new customer may be provided service under one of two options. Under the first option customers are allowed the first half mile of highway construction without charge, and then pay either \$40 or \$60 per tenth mile for each tenth mile beyond that. The \$40 charge is assessed in those situations involving joint use, or REA, poles. The \$60 charge is assessed in situations where the Company places its own wires on its own poles. Under the second option the customer is

given an allowance of \$750 with the remainder of the construction cost charged to the customer as a negotiated construction charge. (Tr., pp. 336-338) The Company is currently relying exclusively on this option when providing new service.

62. Under the proposed Zone Construction Charge Tariff new customers would be assessed a fixed flat charge for construction. The amount of the charge would vary depending on the zone in which the customer requested service, with the charge growing larger the further the zone lay from the Base, Suburban or Locality Rate Area. The proposed Zone Construction Charge would not apply when service is reconnected at the same location or re-graded to a higher grade of service. The proposed Zone Construction Charges are presented on page 1, Schedule 5, Exhibit No. 5-A, the pre-filed exhibits of Mr. Marquardt.

63. The proposed Zone Construction Charge tariff also provides for the provision of service in "unusual construction situations. " The tariff specifies that:

Where the service location is so isolated or inaccessible that the unit cost of construction is unreasonably excessive, a construction charge, and/or monthly charge, will be assessed in addition to the zone construction charge provided for herein. (Proposed Original Sheet 5, Section 8, Construction and Zone Construction Charges.)

64. The Company has stated that the uniform application of Zone Construction Charges would be implemented immediately following approval of the tariffs by the Commission (Marquardt, Direct, p. 8), and has estimated that the proposed charges would generate approximately \$230, 000 annually (page 2, Schedule 5, Exhibit No. 5-A).

65. The Commission is amenable to the zoned exchange concept. The issue of zone incremental charges was considered during the course of Docket No. 80.12.100, Mountain Bell's latest general rate case. There it was found that:

In order to provide greater ease of administration, greater clarity in understanding, and to advance the notion of placing all local exchange customers on a more equal footing, the Commission believes that it is beneficial at this time to replace the -current method of assessing additional revenue via mileage charges with a system of zone increment charges. (Finding of Fact No. 223, Order No. 4786b)

66. In that same docket the Commission directed the Com[any to establish three incremental charge zones beyond the Base, Suburban and Locality Rate Areas. The first zone is to extend two miles beyond the BRA, the second increment to extend four miles beyond the first zone (ending six miles from the BRA), and the third zone to include everything-beyond zone two. The Commission maintains this system of assessing zone incremental charges in this docket.

67. Regarding the Construction and Zone Construction Charge Tariff, the Commission accepts the Company's original proposal as filed in this docket, with one modification to be discussed momentarily. The proposal and the associated charges are presented on page 1, Schedule 5, Exhibit No. 5-A of Mr. Marquardt's pre-filed exhibit. The Commission agrees that the new system of assessing construction charges will be easier for customers to understand, simpler to administer, and provide all new installations with equal treatment.

68. The Commission, however, feels compelled to modify the Company's proposal regarding the recoupment of costs in those situations designated "unusual construction situations. " This modification is based on the opinion that the tariff would in effect be too open-ended to represent responsible rate-making vis-a-vis protection of the ratepayer. In those situations in which costs are expected to be significantly out of line with the average, the Company will be allowed, instead, to petition the Commission for relief on a case-by-case basis.

69. The Company has indicated six areas of revenue generation associated with the RTIP. These include increases in annual revenue generated by 1) re-grading existing four- and eight-party customers to one and two-party service, 2) implementing the exchange zone incremental charges, 3) adding new customers outside the BRA during the program, 4) increased toll calling, 5) implementing the zone construction charges, and 6) net savings in maintenance expense. Although the Company has provided estimates of the revenue effect stemming from each of these areas, the Commission cannot accept these estimations for the same reasons it could not accept the Company's projection of costs. (See Finding of Fact No. 43.)

70. The Commission does recognize, in any event, that the revenue generated in the above mentioned six areas will not be sufficient to meet the annual revenue requirements of the program. It is contemplated at this time that this revenue deficiency, should it in fact occur, will be recouped by increasing exchange zone incremental charges and/or local exchange rates for residential and business customers living within the BRA. Increasing rates for subscribers living within the BRA comports with the Commission's goal of placing all local exchange subscribers on a more equal footing (see Finding of Fact No. 217, Order No. 4786b), and recognizes the increased benefits accruing to these customers that arise as a consequence of the increased accessibility of customers located in rural areas.

71. During the course of these proceedings it was noted that over the past several years the Company has spent 35-40 percent of its outside plant exchange construction budget to maintain and provide service outside of the Base Rate Area (Remington, Direct, p. 4). Implementation of the RTIP should not be interpreted as an alteration of the existing level or pattern of outside plant construction budgeting, but should be viewed, rather, as a supplement to the Company's existing, on-going construction program.

CONCLUSIONS OF LAW

1. Applicant, Mountain States Telephone and Telegraph Company is a corporation providing telephone and other communications services within the state of Montana and as such is a "public utility" within the meaning of Section 69-3-101, MCA.

2. The Montana Public Service Commission properly exercises jurisdiction over the Applicant's Montana operations pursuant to Title 69, Chapter 3, MCA.

3. The rate of return allowed for investment in the RTIP meets the constitutional requirement that a public utility's return must be commensurate with returns on investments in other enterprises having corresponding risks and sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. " Federal Power Commission v. Hope Natural Gas Company, 320 U. S. 591, 600 (1944).

4. Pursuant to Section 69-3-201, MCA, every public utility is required to furnish reasonably adequate service and facilities. The Commission concludes that four- and eight-party service provided by Applicant in many rural areas of Montana does not constitute reasonably adequate service or facilities. It is a proper exercise of the Commission's delegated authority to order that a utility take such steps as the Commission finds are necessary to insure that reasonably adequate service and facilities are provided in the future.

5. The rate modifications authorized or contemplated by the Commission herein are just, reasonable and not unjustly discriminatory, Section 69-3-201, MCA.

ORDER

THE MONTANA PUBLIC SERVICE COMMISSION ORDERS THAT:

1. The Mountain States Telephone and Telegraph Company shall immediately implement its proposed Rural Telephone Improvement Program as modified by the Findings of Fact portion of this order. Said program is to be completed by the end of the 1984 construction season.

2. Mountain Bell is to submit bi-monthly reports to the Commission concerning the progress of the program. These progress reports are intended to keep the Commission advised as to any revisions in cost estimates that might arise as the actual engineering and construction is done. They should also address the concerns stated in Findings of Fact Nos. 55, 56 and 57.

3. At the conclusion of each construction season Mountain Bell is to file an application for increased revenues necessary to recover the costs incurred during that year's upgrade including a 14.03 percent return on investment. In its application the Company shall address each of the following and to the extent possible shall confine itself to actual experienced figures:

- a) costs of the upgrades, included should be information supporting the cost effectiveness of the plant constructed (cost of alternatives, expected life of plant, state of the art, etc.)
- b) increased revenues associated with regrades from four- and eight-party service to one- and two-party service,
- c) increased revenues from adding additional customers outside the base rate area,
- d) increased revenues associated with stimulated toll calling,
- e) revenues from zone construction charges,
- f) net savings in maintenance expense, and
- g) the impacts on the costs and revenues of RTIP that stem from recent and pending changes -in the regulatory arena (Computer II Inquiry, Joint Board separations determinations, Senate Bill 898, changes in depreciation methods, etc.)

4. The Commission will then conduct a hearing to determine what the revenue deficiency associated with that year's upgrade is and how that revenue deficiency should be recovered. Said hearing will be conducted on an expedited basis with an order issuing well before the nine-month statutory deadline established for general rate cases.

5. The Company's proposed revised tariffs implementing nonrecurring zone construction charges are approved with the following modification. The language " . . . following review and approval by the Montana Public Service Commission" is to be added at the end of paragraph C, 3, b on original sheet 5 of Section 8, Construction and Zone Construction Charges.

6. The modified rates and charges approved herein are to be effective upon acceptance of revised tariff sheets.

7. The Commission having fully addressed all aspects of a rural improvement program in this docket, Mountain Bell's Motion to Dismiss Docket No. 6570 is GRANTED.

8. All motions and objections made by the parties in this docket which were not ruled upon by the Commission at the hearing or earlier in this order, are hereby denied.

Done and Dated this 21st day of September, 1981, by a vote of 5-0.

BY ORDER OF THE MONTANA

GORDON E. BOLLINGER, Chairman

JOHN B. DRISCOLL, Commissioner

HOWARD L. ELLIS, Commissioner

CLYDE JARVIS, Commissioner

THOMAS J. SCHNEIDER, Commissioner

ATTEST:

Madeline L. Cottrill
Secretary

(SEAL)

NOTE: You may be entitled to judicial review of the final decision in this matter. If no Motion for Reconsideration is filed, judicial review may be obtained by filing a petition for review within thirty (30) days from the service of this order. If a Motion for Reconsideration is filed, a Commission order is final for purpose of appeal upon the entry of a ruling on that motion, or upon the passage of ten (10) days following the filing of that motion. cf. the Montana Administrative Procedure Act, esp. Sec. 2-4-702, MCA; and Commission Rules of Practice and Procedure, esp . 38.2.4805, ARM.